A STUDY OF THE IMPACT OF LEARNING AGILITY AND DEMOGRAPHIC VARIABLES ON JOB SATISFACTION

Synopsis

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Submitted By

Ruchika Vatsa

Under The Supervision of

Dr. Purnima Bhatnagar
Assistant Professor

And

Prof. Pami Dua
Director and Senior Professor
Delhi School Of Economics, University of Delhi
New Delhi - 110007

Department of Management, Faculty of Social Sciences

Dayalbagh Educational Institute (Deemed to be University)

Dayalbagh Agra – 282005

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1. INTRODUCTION

"Learning agility is the "Organizational X-factor" which can contribute to 25% higher profit margins"

- (Korn Ferry Institute Study, 2014).

Learning agility is a term given to the skillset mix of seeking, sensemaking, internalizing, and applying the experience to the same or new situation by making use of one's own or others' experience (Hallenbeck, 2016). The seminal work on learning agility consists of feedback systems and subsystems interacting with development, experience, talent, and strategy (McCall, 1998 p. 144). Lombardo and Morrison in their book, "the lessons of experience" first used the term learning agility which was published in the year 1988 (Harvey & Meuse, 2021 P. 13). Learning agility has been associated with learning goal orientation theories (DeRue et al., 2012), relevance in the VUCA world (Suzana et al, 2020), behaviors (De Meuse et al., 2010), mediators (Saputra et al., 2018), and antecedents (Alavi et al., 2014) for professional success.

Learning Agility has been defined by Lombardo and Eichinger (2000) – *"... the willingness and ability to learn from experience, and subsequently apply that learning to perform successfully under new or first-time conditions".* Other authors have also defined learning agility considering the other subtle variables e.g., speed and flexibility to learn (Vandewelle, 2012) and flexibility to adapt in crucial circumstances (Saputra *et. al.* 2018). Learning agility is an "asset of emergingness" and an important requirement for entrepreneurship (Madhok & Keyhani, 2012) because no matter how visionary a person, there are always some surprising elements emerging in business. For this research, the perspective of Lombardo and Eichinger is adapted to evaluate the learning agility dimensions in employees to check the associations of their age, gender, educational qualifications, and tenure in the organization. In the next section, the relevance of learning agility as an important part of organizational and individual success has been discussed.

1.1 Relevance of Learning agility

In the introduction, the learning agility definition and perspective applied in the study were given. This section covers the importance of learning agility for corporates and individuals in the ever-refreshing technological phase of the industrial revolution. Initially, the concept of learning agility was studied in the context of cognition in psychology and mentioned as "the right stuff" required for corporate

employees (McCall, 1998). Research on learning agility from the perspective of organizational science has gained significant importance in recent years. In the VUCA world, it is practiced by organizations in adapting rapidly to changing business needs. Some of the giant corporations like Proctor & Gamble, IBM, Johnson & Johnson (Harvey & Meuse, 2021 P 488, 501, 544) are focusing on developing learning agility. In India TCS and Wipro have been doing the same. Mavengere & Tikkamäki (2013) have discussed this concept in the context of developing learning agility for evolving an agile workforce.

Learning agility defines individual worth when a situation to develop and grow is provided (Mukherjee & Sujatha, 2020). Those who are high on the dimensions of learning agility are generally potential high performers (Yadav & Dixit, 2017). Learning agility aids rational thinking and decision making and is one of the prime benefactors of self-awareness and career growth (De Meuse et al., 2010; De Meuse, 2017; Flaum & Winkler, 2015). Learning agility and learning ability are interconnected terms that are essential for advancing a career (De Meuse et al., 2010). De Meuse *et. al.* (2012) clarified the distinction between the ability to learn and how individuals learn in six different phases based on learning theories and associated the learning ability concept with Learning agility. Woodrow (1946) defined learning ability as the shortest time to extrapolate learning from observation and records.

Learning agility is present in each person. Though out of the five dimensions of learning agility i.e. People agility, change agility, result agility, mental agility, and self-awareness as suggested by Lombardo and Eichinger (2000), the level differs in everyone. An individual from the start of their career experiences day-to-day activities either done by him or captured through observation, classroom training, on-the-job training, conversations with peers and bosses, and external sources. These experiences may be positive or negative. Learning agility aids in reflecting on those experiences and in using those experiences in the future. An individual who can learn from experience and focus on using them in the future along with enhancing their knowledge, skills, and abilities can be called an agile learner. Hiring agile learners can help the organization build a potential high performer group into an agile workforce (Al-kasasbeh & Omar, 2016; Chakraborty *et. al.* 2019; Ghosh *et. al.* 2021; Saputra *et. al.* 2018; Tripathi *et. al.* 2020; Yadav & Dixit, 2017).

Learning agility has been linked as the mediator of propagating learning culture, work engagement, and employee performance (Ghosh *et. al.* 2021), and organizations can develop learning agility as a skill by increasing the learning ability of their employees (Verma & Singh, 2020).

Other benefits of learning agility may include increased willingness to face new experiences (Patil & Suresh, 2019); greater job engagement and productivity (Chung *et. al*. 2014); job satisfaction (Kim and Kim, 2021); creation of a talent pool (Tripathi *et. al*. 2020); workplace sustenance (Mavengere & Tikkamäki, 2013); talent retention (Redecker *e.t al.* 2009; Chung *et. al.* 2014; Gravett & Caldwell, 2016; Nagesh & Sherif, 2010) and innovation, invention and return on investment (Garechana *et. al*. 2017; Mukherjee & Sujatha, 2020). The e-learning platforms are very useful in stimulating learning in agile and non-agile learners in the development of faculties (Chakraborty *et. al.* 2019; Dash & Chakraborty, 2021; Khatri & Raina, 2017; R & Bansal, 2012). Carmellie & Dothan (2017) also suggested that learning agility is also important from the perspective of transition of buyer-supplier relations from transactional ties to commitment-based ties to strengthen the areas of social exchange, micro-foundations, positive work relationships, commitment, and dynamic capabilities by creating an environment of respectful engagement, rich and ongoing communication, and advice seeking.

> "The single most important task in management is to pick good deputies,"
>
> ― Raghuram G. Rajan, I Do What I Do (2017)

Hence, the subject of learning agility is an important one from the perspective of any organization if it wishes to survive in a rapidly changing environment, and desire agile resources. Learning agility is important in a general life setting for human beings to adapt to changing life circumstances. In the next section relevance of learning agility for an emerging country like India has been discussed.

1.2 Learning agility is the key to bridging the skill gap in an emerging country like India.

In the previous section relevance of the topic was discussed, this section covers its importance for developing countries like India. With an estimated population of more than 1.38 billion Indian citizens, the average age is 26 years. According to the India skills report issued by AICTE in 2021 (Shreenath & Manjunath, 2021), 45.9% of Indian youth are employable and 85.92% are seeking internships to kick start their career. A study published in Human Resource Management International

Digest in the august 2021 issue, indicated that IT sector employees in India are giving more importance to learning agility and learning culture than turnover views. Indian employees and youth of employable age are aware of the importance of learning with the speed and flexibility to adapt. So, they can self-learn and move forward in an ever-changing environment. Learning agility is the key to helping learn how to quickly respond and apply solutions to ever-changing requirements of the environment whether business or any other domain and to remain at par with increasing global competitiveness. For example, a study on the skill gap conducted by Amazon web services and Intel corporations in June 2021 revealed that the digital proficiency skill gap of public sector employees at a global level is slowing down the digital transformation. In the private sector companies have addressed this issue and endeavored to close the skilling gaps by involving the employees in online learning platforms and on-the-job training for digital transformation. (Closing the skills gap, TCS, 2020). Addressing this global skill gap, the world economic forum during its 50th annual meeting launched the "Reskilling revolution" which aims to provide better education, skills, and jobs by 2030 at the global level. Thus, to be receptive to the new learnings and adapt to the new beginnings, learning agility is of great importance for a dynamic future for a developing country like India.

The launch of industry 4.0 saw AI, robotics, blockchain, crypto, scrum, and machine learning technologies changing employability skills requirements (Echeberria, 2020). We are also now witnessing the creativity and personalization of operations and services through innovation and inclusivity as the fifth industrial revolution. There is also anticipation that nanotechnology will be bringing in the sixth industrial revolution with the collaboration of multiple systems coming together to create a socio-economic-technological paradigm shift (Sessa & Ricci, 2014). To close this discussion learning agility is the key to unlearning and learning new skills to stay relevant as cautiously quoted by the futurist and philosopher Alvin Toffler, "*The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn*."

1.3 Job satisfaction

Learning agility has been recently observed to affect Job Satisfaction, which is defined as a positive emotional state of an employee, wherein he/she feels a sense of being valued and has a fulfilling

interest in the job because of appraisal, affective response, and positive work environment (Locke, 1976; Blood, 1969; Dawis and Lofquist, 1984; Lease, 1998). Job satisfaction, in turn has been observed to strongly affect an employee's subjective well-being, and life satisfaction. It is widely acknowledged that job satisfaction is complex to understand and is impacted by both situational and personal factors (Cinni, 2014). Some of these factors encompass achievement, recognition, the work itself, responsibility and advancement (Herzberg, 1995). According to Glisson and Durick (1988), out of the three kinds of predictors of job satisfaction, characteristics of job tasks performed, characteristics of the organization in which the employee works, and characteristics of the employee, the last one has received the least attention. Job satisfaction is a "construct worthy of attention in the organizational sciences as well as subjective well-being researches in general as well" (Judge and Klinger, in Eid and Larsen, 2008). Therefore, researchers around the world try to discover the factors which cause job satisfaction and try to understand how to improve it.

In the specific context of understanding the relationship between Learning agility and job satisfaction, which is one of the focus areas of the present research, one may state that on the one hand, rapid changes in the work arena would need employees to possess high levels of learning agility for organizational success. On the other hand, challenging roles and times may sometimes cause dissatisfaction with a job, leading to attrition and loss of talent. In the context of small and medium enterprises, Kim and Kim (2021) had observed a significant positive association between the two variables. It is not known at this time what type of relationship exists between the two variables in other organizations and in association with the personal characteristics of the employees. From the perspective of organizational and personal change, it is meritorious to study the association between the two concepts.

Hence, the present research aims to understand the broader association between learning agility and job satisfaction in the context of employees based in India, as well as the factors which affect learning agility. The next section discusses the theoretical framework and review of literature on focus areas.

2. THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

In this section, the review of literature is discussed to understand learning theories that are related to

learning agility, factors that affect learning agility, variables that can be seen as the outcome of learning agility, and measurement scales of learning agility.

2.1 Learning theories at the base of learning agility

The following Learning theories researched were found most suited and related to learning agility:

1.Experiential Learning Approach, Kolb Model (1984): Kolb's classic learning model is based on selecting the most effective way of learning which one might find most suited for their learning (Allinson & Hayes, 1996). Kolb (1984) describes experiential learning as dynamic because it takes place between the learner and the environment created for learning and relearning based on the transformation of learners as per their thinking, feeling, perceiving, and behaving. David Kolb was also the pioneer in identifying the learning styles of different learners.

2.Honey and Mumford's (1992) learning theory: Honey and Mumford assert that once people understand how they learn effectively, learners can learn more. They also classify learners into four categories viz, activist, theorist, pragmatic, and reflector. And everyone can be identified as one or a combination of any two types of learners. If they understand they can learn more.

3.Flavell's (1979) metacognitive theory – Flavell's theory has two elements: knowledge of cognition and regulation of cognition. According to this theory, learners are aware of how they can learn by thinking about their thinking.

4."Saban, Killion, and Green's (1994) typology of reflection in learning" – Authors assert that thinking deeply about actions in pre, during, and post-learning impacts learning effectiveness. It gives learners time to critically reflect on anticipating learning, scenario building in mind, and post-learning using the same to build knowledge (Stromei, 2001).

5.Selective perception theory (Smith, 1960) – The association at the employee level for learning suggests that selective perception theory is the combination of function-based goals and expected positive outcomes that lead to the development of learning goal orientation based on their work history (Bundersun & Sutcliffe, 1995).

2.2 Factors affecting learning agility.

Osagie *et. al.* (2018) defines learning goal orientation as motivating oneself to improve existing

knowledge and competency by learning new things for accomplishing new and complex tasks. Empirical studies on employees have shown that people with a learning goal orientation are motivated to enhance skills, seek new opportunities to learn and acquire new knowledge for self-growth (Der-Chiang & Ching-Yeh, 2020). Hence learning goal orientation is set clearly as a factor that can be defined as an antecedent of learning agility (DeRue *et. al.* 2012). Drinka (2018) conducted a structural equation modeling and regression analysis of 165 respondents and verified the direct association between learning agility and learning goal orientation in subordinates but could not find a direct association between learning agility and performance due to methodological issues.

Personality is the combination of people's psychological characteristics (Wen & He, 2020). Personality testing has been used as a measure of managerial selection and is considered a relative determinant for performance at work (Dakin *et. al.*1994). Personality traits assessment has been researched for evaluating its association with intention to learn (Watjatrakul, 2020); experiential learning (Woods, 1982); hiring decision; work behavior (Woods *et. al.* 2020); knowledge management behaviors (Esmaeelinezhad & Afrazeh, 2018); Value orientation (Wen & He, 2020); etc. Similarly, many researchers have used the big five personality test to prove their hypothesis for traits of personality in association with learning agility (Connolly, 2001; Eichinger & Lombardo, 2004; De Meuse *et. al.* 2017).

An authentic leadership model suggested by Yadav & Dixit (2017) asserted that learning agility was a contributing variable along with other factors like intelligence and domain knowledge. Bedford (2011) from an examination of 294 respondents' data concluded in the thesis that learning agility scores had no correlation with personality and cognitive abilities and recommended learning agility as a standalone trait different from the latter. Allen (2016) through a survey of 832 respondents observed that learning agility is related to cognitive personality variables and cognitive ability. In another study conducted by Laxson (2018), 78 employees undergoing leadership development programs were targeted to fill the response and their results partially supported the tested framework developed by Ashford *et. al.* (2012) for demonstrating significant relationships between personality variables, learning agility, and performance and learning.

2.3 Variables considered as outcomes of the learning agility

Allen (2016) concluded through 89 items survey that learning agility is affected related to supervisory and entry-level work performance. De Meuse et al. (2012) found that predictive validity of learning agility increases over time through double rater points from 1,733 respondents' data and concluded that learning agility is significantly related to work performance in a study of 6,730 employees. Bedford (2011) from an examination of 294 respondents' data concluded that learning agility scores were high in high job performance and a predictor of potential for career advancement in the future but not in the present job. A hierarchical regression study on data collected from 176 respondents used work experience and leadership position as a control variable and observed that work demand and workplace demand need constant change and adaptation for agile transformation (Sherehiy & Karwowski, 2014). A survey-based study by Ghosh *et. al.* (2021) investigating the role of culture and technology on 776 executives across all levels concluded that culture and technology is a mediating factors for learning agility and outcome. Another study conducted by Tripathi *et. al.* (2020) on survey responses received from 226 respondents concluded that learning culture directly impacts the learning agility of employees at entry-level and middle levels. A regression model on learning transfer created from an empirical study of 177 respondents found that the environment variables like transfer climate, risk-taking, and innovation-driven culture, quality-driven culture mediates the motivation to learn amongst employees (Kontoghiorghes, 2004). A study comprising 66 top-level executive respondents observed that learning agility plays a mediating role in culture and work engagement (Saputra *et. al.* 2018). A review on holistic learning practice for employee development by Mathews (1999) suggested that employees must be on board and willing to move towards a learning culture to keep pace with the changing business environment. De Meuse *et. al.* (2013) studied and found that Career Advancement and job satisfaction were the outcome variables of learning agility in employees in field studies for managerial and leadership roles. Hiring agile learners can help the organization build potential high performers into an agile workforce (Al-kasasbeh & Omar, 2016; Chakraborty *et. al.* 2019; Ghosh *et. al.* 2021; Saputra *et. al.* 2018; Tripathi *et. al.* 2020; Yadav & Dixit, 2017).

2.4 Learning agility and Job Satisfaction

Melnik & Maurer (2006) conducted job satisfaction analysis and comparison in agile and non-agile

teams of a software company. A moderate correlation between the level of experience with agile methods and the overall job satisfaction was observed. Knowledge, information and technologies acquired from various work experiences are utilized by individuals to improve learning agility and job satisfaction as well as job performance (Kim and Kim, 2021). Direct research on the relationship between learning agility and job satisfaction is insufficient, but some studies have found a positive effect of learning agility on job satisfaction. In studies referred to by Kim and Kim (2021), for secondary school teachers, a positive effect of learning agility on job satisfaction was observed by Kim and Ryu (2020). Similar studies were conducted on teachers by other researchers. Hence, to confirm the positive effect of learning agility on job satisfaction, the following hypothesis is proposed:

Hypothesis 1: There is a significant effect of learning agility on Job Satisfaction

2.5 Predictors of Personal Factors affecting Job Satisfaction

The primary personal factors affecting job satisfaction were observed to be individual disposition (Staw and Ross, 1985; Staw, Bell and Clausen, 1986 in Glisson and Durick, 1988); Age (Dewar and Werbel, 1979) who reported that older workers were more satisfied); and Gender (McNeely, 1984) who reported that females were intrinsically more satisfied). Carleton and Clain (2012) observed that gender differences in job satisfaction of married workers could be attributed to gender difference in samples, and that more research was needed in understanding gender differences of unmarried workers. According to Kalleberg and Loscocco (1983), studying the role of age in job satisfaction helped researchers understand the interplay of work, self and family concepts as they produce changes in role outcomes. They observed age to be positively related to job satisfaction for the US, attributing differences in job satisfaction to age variations in work values and job rewards. To confirm the association of age and gender with job satisfaction, the following two hypothesis are proposed in the context of this study in India:

Hypothesis 2: There is a significant effect of age on Job Satisfaction

Hypothesis 3: There is a significant effect of gender on Job Satisfaction

2.6 Job Characteristics as predictors of job satisfaction

Certain job characteristics like skill variety, task identity, autonomy, task significance, and feedback (Hackman and Oldham, 1975, and verified by Bhatnagar & Grosse, 2019); location (Bhatnagar & Grosse, 2019), clear job roles, over met expectations (Black & Gregersen, 1990), environment fit (Aftab et al., 2022), work engagement (Raghb et al., 2022) and work life balance (Francis et al., 2022) are expected to have a positive effect on job satisfaction. However, low environment fit (Redelinghuys & Botha, 2016) and job stress (Mawardi, 2022) were observed to be negative indicators of job satisfaction.

It may be noted that Kolb's classic learning model (1984) which emphasized the dynamic nature of experiential learning becomes important in the context of the variety of skills accumulated during the years of work engagement of employees. Here work experience may be accorded both a qualitative dimension in terms of the nature of work performed over one's work life as well as a quantitative dimension basis number of years of work life. Hence to confirm this fact in the specific context of workforce in India, the hypothesis is proposed:

Hypothesis 4: There is a significant effect of work experience on Job Satisfaction

Further, since learning agility is defined as the *"... the willingness and ability to learn from experience, and subsequently apply that learning to perform successfully under new or first-time conditions" (*Lombardo and Eichinger, 2000) it is interesting to understand that the two may interface to impact Job Satisfaction. Hence, the following hypothesis is proposed to be studied in the present research:

Hypothesis 5: There is a significant effect of learning agility by work experience on Job Satisfaction

2.7 Potential scales to measure Learning Agility and Job Satisfaction

Learning agility scales: Lee & Song (2021) developed a scale for measuring learning agility in human resource professionals. They collected 365 responses and applied exploratory factor analysis, confirmatory factor analysis, and Rasch analysis to validate the measurement. They were successful in developing this scale and further used the measurement invariance (MI) test to confirm the generalizability of the measurement and used Harman's single factor test to assess the common

method variance (CMV). Özgenel & Yazıcı (2020) used the Marmara Learning Agility Scale developed by Yazici & Özgenel (2021) for evaluating learning agility in school administrators. They used Likert scale-based surveys for 428 volunteers and conducted an exploratory factor analysis to check the validity and reliability of their data. Further to develop this scale, a retest of the study was conducted, and coefficient correlation was analyzed for each item from the 30 items and 5-dimension list. It was observed that during the search there was no academic model or method available to measure learning agility. Burke Learning Agility Inventory™ is a self-multi rater 38 item list summarized in 9 dimensions of flexibility, speed, experimenting, performance risk-taking, interpersonal risk-taking, collaborating, information gathering, feedback-seeking, and reflecting for assessing leaders (Burke, 2017). Garner (2020) also used the same scale and further applied SPSS descriptive statistics to analyze the results of 11 managers of IT project managers and 15 IT, project managers. HFMtalentindex Learning agility Assessment has been developed by Haring et al (2014) focused on finding high potentials who are fluid and adaptable individuals. TALENTx7® uses seven dimensions TalentX7 uses seven dimensions namely, self-insight, connective perspective, interpersonal acumen, change alacrity, drive to excel, environmental mindfulness, and feedback responsiveness (Saputra, 2019). viaEDGE is a self-assessment learning agility test designed based on personality, behavioral and situational questions. Korn Ferry Assess–Potential Solutions is a test to evaluate high, medium, and low potential in the organization. Individuals are given multiple questions on behavior and aptitude to solve and score combinedly. thereafter the development path is chalked out. Only available were the commercial and corporate tests of competitive firms which were competing and hence there is no academic scale available for measuring learning agility with general applicability to date (Harvey & Meuse, 2021).

Job Satisfaction scales: Various scales have been utilized in the Indian context. The scale designed by Spector (1985) is a 28 item Job satisfaction Survey comprising of 7 dimensions i.e. pay, promotion, supervision, fringe benefits, operating conditions, co-workers and nature of work. A revised version of this with a Cronbach alpha of 0.81 was used in the Indian context by Kumar and Giri (2009). Many scales are available with the National Psychological Corporation. Some scales are discussed here, since they have been designed specifically for Indian conditions. A job values questionnaire, which is

a comprehensive instrument designed by Seema Sanghi contains 53 statements on eleven dimensions comprising of financial benefits, non-financial benefits, opportunities for development and promotion, opportunities for responsible and independent action, job and personal security, type and kind of work, job according to interest and abilities, supervisor-supervision and management, coworkers and sub-ordinates, recognition and appreciation for accomplishment of job and working conditions. This was tested on working professionals in both public and private organizations. Hardeo Ojha has also designed an Organizational Job Satisfaction questionnaire comprising of 32 questions in 14 areas. A Job Satisfaction Scale designed by Asha Hinger, Uma Mittal, Vinita Mathur and Mansi Parnami comprising of 50 items in five dimensions (Salary and Facilities, Supervision, Promotion, Work, Human Relations) was administered on working professionals.

2.8 Classification of Literature Review

The literature review has been conducted on selected papers published and available online. A total of 126 research papers were reviewed. 45 research papers, 6 theses were found directly related to the topic, while 41 readings were indirectly related. The remaining papers are not included in the synopsis but will be taken up during research. A broad classification of the previous papers is given as follows:

Table 1 Literature Review Classification

Particulars	Directly related (45)
1. The focus of the paper	
Performance	31
Culture	18
Training	17
Career Growth	19
Self-awareness	17
Leadership Potential	20
Job Satisfaction	12
2. Context of the paper	
Indian	4
Foreign	41
3. Type of Data for analysis	
Qualitative	16
Quantitative	34
4. Research Design	
Exploratory	13
Descriptive	19
Analytical	17

Summary of Literature Review (Table 2)

Title *Author(s) (Year)*	Publisher	Category	Focus Issue							Context		Data Type		Methodology		
			Performance	Culture	Training	Career Growth	Self-awareness	Leadership Potential	Job Satisfaction	Indian	Foreign	Qualitative	Quantitative	Exploratory	Descriptive	Analytical
Enhancing Employee Agility Through Information Technology Competency: An Empirical Study of China Lai, Han; Pitafi, Abdul Hameed; Hasany, Noman; Islam, Tahir (2021)	SAGE Open	Research Paper	✔								✔		✔			✔
Developing a measurement of employee learning agility Lee, Jinju; Song, Ji Hoon (2021)	European Journal of Training and Development	Research Paper	✔			✔	✔				✔		✔		✔	✔
Role of e-learning technology and culture on learning agility: An empirical evidence Ghosh, Susmita; Muduli, Ashutosh; Pingle, Sameer (2021)	Human Systems Management	Research Paper	✔	✔	✔		✔			✔			✔		✔	
Learning agility, culture, and outcome: an empirical study Ghosh, Susmita; Muduli, Ashutosh (2021)	International Journal of Indian Culture and Business Management	Research Paper		✔	✔	✔				✔			✔		✔	
Underlining micro socio-psychological mechanisms of buyer-supplier relationships: Implications for inter-organizational learning agility Carmeli, Abraham; Zivan, Itzik; Gomes, Emanuel; Markman, Gideon D. (2021)	Human Resource Management Review	Research Paper	✔	✔							✔	✔		✔		
Building Learning Agility Through Psychological Safety Stomski, Lorraine; Jensen, Kelly (2021)	The Age of Agility: Building Learning Agile Leaders and Organizations	Book Chapter	✔	✔	✔						✔	✔		✔		
The Age of Agility: Building Learning Agile Leaders and Organizations Harvey, Veronica Schmidt; the Meuse, Kenneth P. De (2021)	Oxford University Press.	Book	✔	✔	✔	✔		✔			✔	✔	✔	✔		

Title *Author(s) (Year)*	Publisher	Category	Focus Issue							Context		Data Type		Methodology		
			Performance	Culture	Training	Career Growth	Self-awareness	Leadership Potential	Job Satisfaction	Indian	Foreign	Qualitative	Quantitative	Exploratory	Descriptive	Analytical
Learning Agility of School Administrators: An Empirical Investigation Özgenel, Mustafa; Yazici, Sebnem (2021)	International Journal of Progressive Education	Research Paper	✔	✔				✔			✔		✔			✔
How does learning agility affect a sales workforce in an IT multinational? Miley, Mark (2020)	Doctoral dissertation, Dublin City University	Thesis	✔	✔		✔		✔			✔		✔			✔
The potential of learning agility Haring, S.; Shankar, J.; Hofkes, K. (2020)	Technical Report	Technical Report	✔	✔	✔	✔	✔	✔			✔		✔		✔	
Learning Agility Differences Between Managers and Project Managers of Information Technology Projects Garner II, William A. (2020)	Doctoral dissertation, Capella University	Research Paper	✔	✔	✔	✔	✔	✔			✔		✔		✔	
A Study on the Relationship between Job Characteristics and Individual Learning Agility and Learning Satisfaction Choi, Soonwon; Jeon, Ki Seok (2020)	The Journal of the Korea Contents Association	Research Paper	✔	✔		✔	✔	✔			✔		✔		✔	
Agility: the new response to dynamic change Ulrich, Dave; Yeung, Arthur (2019)	Strategic HR Review	Research Paper	✔								✔	✔		✔		
The Mediating Role of Learning Agility on the Relationship between Work Engagement and Learning Culture Saputra, Nopriadi; Abdinagoro, Sri Bramantoro; Kuncoro, Engkos (2018)	Pertanika Journal of Social Sciences and Humanities	Research Paper	✔	✔	✔	✔	✔	✔			✔		✔		✔	
The relationships of family perceived digital competence and attitude, and learning agility in sustainable student engagement in higher education Kim, Hye Jeong; Hong, Ah Jeong; Song, Hae-Deok (2018)	Sustainability	Research Paper	✔		✔		✔				✔		✔		✔	
Within and between-person effects of learning agility: A longitudinal examination of how	Doctoral dissertation,	Thesis									✔					

Title *Author(s) (Year)*	Publisher	Category	Focus Issue							Context		Data Type		Methodology		
			Performance	Culture	Training	Career Growth	Self-awareness	Leadership Potential	Job Satisfaction	Indian	Foreign	Qualitative	Quantitative	Exploratory	Descriptive	Analytical
learning agility impacts future career success Laxson, Erin N. (2018)	Colorado State University															
Exploring the concept of learning agility: a thesis presented in partial fulfillment of the requirements for the degree of Master of Business Studies in Human Resource Management at Massey University, Manawatu, New Zealand Miller, Simon (2018)	*Doctoral dissertation, Massey University*	Thesis	✓								✓		✓		✓	
What are the Best Practices for Measuring Learning Agility, Cognitive Ability, and Personal Inventory and How are Companies Currently Using Them? Sims, Lauren; Tao, Jiayu (2017)	*Cornell University Article*	Research Paper	✓		✓	✓	✓	✓			✓		✓		✓	
A Conceptual Model of Learning Agility and Authentic Leadership Development: Moderating Effects of Learning Goal Orientation and Organizational Culture Yadav, Nidhi; Dixit, Shikha (2017)	*Journal of Human Values*	Research Paper	✓		✓	✓	✓	✓			✓		✓		✓	
Learning agility: The key to leader potential Hoff, David F.; Burke, W. Warner (2017)	*Tulsa OK*	Book	✓			✓		✓			✓	✓		✓	✓	
Learning agility: Its evolution as a psychological construct and its empirical relationship to leader success De Meuse, Kenneth P. (2017)	*Consulting Psychology Journal: Practice and Research*	Research Paper	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	
Conceptualizing Learning Agility and Investigating it's Nomological Network Allen, Josh (2016)	*Doctoral dissertation Florida International University*	Thesis	✓	✓			✓				✓		✓		✓	
What is Learning Agility? Gravett, Linda S.; Caldwell, Sheri A. (2016)	*Palgrave Macmillan,*	Book	✓		✓			✓			✓	✓		✓		

Title *Author(s) (Year)*	Publisher	Category	Focus Issue							Context		Data Type		Methodology		
			Performance	Culture	Training	Career Growth	Self-awareness	Leadership Potential	Job Satisfaction	Indian	Foreign	Qualitative	Quantitative	Exploratory	Descriptive	Analytical
	New York.															
How does learning agile business leadership differ? Exploring a revised model of the construct of learning agility concerning executive performance Smith, Bradford C. (2015)	*Doctoral dissertation Columbia University*	Thesis	✓		✓		✓	✓			✓	✓	✓	✓	✓	
The Role of Learning Agility in Executive Career Success: The Results of Two Field Studies Dai, Guangrong; De Meuse, Kenneth P.; Tang, King Yii (2013)	*Journal of Managerial Issues*	Research Paper	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	
Prioritizing the Learning Agility Research Agenda Hezlett, Sarah A.; Kuncel, Nathan R. (2012)	*Psychology: Perspectives on Science and Practice,*	Article	✓								✓	✓		✓		
Learning agility: In search of conceptual clarity and theoretical grounding DeRue, D. Scott; Ashford, Susan J.;	Myers, Christopher G. (2012) *Industrial and Organizational Psychology*	Research Paper	✓	✓	✓	✓	✓	✓			✓	✓		✓		
The role of learning agility and career variety in the identification and development of high potential employees Dries, Nicky; Vantilborgh, Tim; Pepermans, Roland (2012)	*Personnel Review*	Research Paper	✓			✓	✓	✓			✓		✓		✓	
Learning agility: Still searching for clarity on a confounded construct Arun, Nikita; Coyle, Patrick T.; Hauenstein, Neil (2012)	*Industrial and Organizational Psychology*	Research Paper	✓			✓		✓			✓	✓		✓		
Learning agility: Not much is new Wang, Shu; Beier, Margaret E. (2012)	*Perspectives on Science and Practice*	Research Paper	✓	✓							✓	✓		✓		
Learning about learning agility Mitchinson, Adam; Morris, Robert (2012)	White Paper	White Paper	✓	✓	✓	✓	✓	✓			✓	✓		✓		

Title *Author(s) (Year)*	Publisher	Category	Focus Issue							Context		Data Type		Methodology		
			Performance	Culture	Training	Career Growth	Self-awareness	Leadership Potential	Job Satisfaction	Indian	Foreign	Qualitative	Quantitative	Exploratory	Descriptive	Analytical
The role of learning agility in workplace performance and career advancement. Bedford, Christopher Lee (2011)	*University of Minnesota.*	Thesis	✔			✔					✔		✔		✔	
The Effect of Learning Support Leadership on Learning Agility and Job Satisfaction of Organizational Members Moon Jun Kim, Su Hee Kim (2021)	Korea Science	Research Paper							✔		✔		✔			✔
Drivers of job satisfaction in midwifery—A work design approach. Mharapara, Tago L., Nimbus Staniland, Matthias Stadler, Janine H. Clemons, and Lesley Dixon (2022)	Elsevier	Research Paper							✔		✔		✔			✔
The Antecedents and Consequences of Job Satisfaction for Rooms Division's Employees in the Egyptian Hotels. Raghb, Ahmed, Micheal Magdy Zaki, and Mohamed Farouk Shehata (2022)	Egyptian Journals	Research Paper							✔		✔		✔		✔	✔
Using Machine Learning to Advance Theory: Pride in Work as a Novel Antecedent of Job Satisfaction. Sheetal, Abhishek, Yi Huang, and Krishna Savani (2022)	Academy of Management Journals	Research Paper							✔		✔		✔			✔
Incidence and Covariates of Job Satisfaction of Women in the Information Technology Sector of Kerala, India. Francis, T. B., Rajesh, P., & Idiculla, E. J. (2022)	American Scholar Press	Research Paper							✔	✔			✔			✔
Ethical leadership, workplace spirituality, and job satisfaction: Moderating role of self-efficacy. Aftab, J., Sarwar, H., Kiran, A., Qureshi, M. I., Ishaq, M. I., Ambreen, S., & Kayani, A. J. (2022)	Emerald Insight	Research Paper							✔		✔		✔			✔
Expectations, satisfaction, and intention to leave	ScienceDirect	Research							✔		✔		✔			✔

Title *Author(s) (Year)*	Publisher	Category	Focus Issue							Context		Data Type		Methodology		
			Performance	Culture	Training	Career Growth	Self-awareness	Leadership Potential	Job Satisfaction	Indian	Foreign	Qualitative	Quantitative	Exploratory	Descriptive	Analytical
of American expatriate managers in Japan. Black, J. S., & Gregersen, H. B. (1990)		Paper														
Perceptions of Social Context and Intention to Quit: The Mediating Role of Work Engagement and Interpersonal Strain. De Simone, S., Cicotto, G., Cenciotti, R., & Borgogni, L. (2021)	MDPI	Research Paper							✓		✓		✓			✓
Examining work role stressors, job satisfaction, job stress, and turnover intention of Sri Lanka's construction industry. Dodanwala, T. C., Santoso, D. S., & Yukongdi, V. (2022)	Taylor and Francis Online	Research Paper							✓		✓		✓			✓
Mediating role of growth needs and job satisfaction on talent sustainability in BPOs and call centres: An evidence from India. Kushwaha, B. P., Tyagi, V., Sharma, P. B., & Singh, R. K. (2022).	Wiley Online Library	Research Paper							✓	✓			✓			✓
Alternative Work Arrangements, Work Environment, and Job Stress on Job Satisfaction and Turnover Intention. Mawardi, M. C. (2022).	Golden Ratio of Human Resource Management	Research Paper							✓		✓		✓			✓
The effect of job satisfaction on employees' productivity. Omoz-Oarhe, O. S., Yusuf, A. A., & Shaibu, H. (2022).	IJMSSPCS Online Journal	Research Paper							✓		✓		✓			✓

The available literature work was reviewed from the perspective of importance of learning agility for leadership, career success and job satisfaction. Most of the empirical studies were found to be around the mediators and impact of the topic. Few researchers also studied the role it played in choice of career and freelance work. These studies have focused on employees at senior and top management levels. Several valid tools for learning agility measurement have been developed for example Talentx7, viaEdge, and Choice along with a few academic scales. There is conceptual work given on how learning agility can transform resources into an agile workforce. All studies have considered that learning agility is already present and depending on their respective work profile and leadership levels employees make choices that lead them to success or derail them.

2.9 Summary of Research gap

The following research gaps were identified from the literature review.

1. Determinants of learning agility amongst working professionals: Very few researchers have investigated the factors which contribute to learning agility amongst working professionals.

2. Demographic variables and job satisfaction: There is insufficient research investigating the effect of personal characteristics/factors like age and gender on job satisfaction in the Indian context.

3. Job characteristics and job satisfaction: Amongst the researches investigated, no study was found which explicitly investigated the nature of the association between work experience and job satisfaction.

4. Learning agility, job characteristics and job satisfaction: No study was observed which had specifically studied the effect of learning agility and work experience on job satisfaction.

In the next section, the hypothesis which are aimed to be studied in the present research are outlined.

3. HYPOTHESES PROPOSED FOR THE PRESENT RESEARCH

The following hypotheses are proposed for the present research:

H1: There is a significant effect of learning agility on Job Satisfaction

H2: There is a significant effect of age on Job Satisfaction

H3: There is a significant effect of gender on Job Satisfaction

H4: There is a significant effect of work experience on Job Satisfaction

H5: There is a significant effect of learning agility and work experience on Job Satisfaction

4. OVERVIEW OF THE PROPOSED RESEARCH

The key aspects associated with the proposed research are enclosed in the present section.

4.1 Need of the study

The need for this proposed study arises from the gap investigated in the literature review in the specific context of India. In this study, first, it is proposed, to study the factors which determine learning agility, and to help prioritize them to understand the significant factors amongst those identified. Second, the research proposes to investigate the associations of learning agility, age, gender and work experience with job satisfaction, a key contributor to organizational success. If this study is not carried out, an opportunity will be lost to understand how best, organizations can succeed in the VUCA world by leveraging the personal characteristics of agile employees and simultaneously adding to their satisfaction goals. There is a need to study how providing meaningful careers and variety in work can help develop employees and make them more agile. It will help key Human Resource and Training and Development policy formulating teams to plan interventions and provide assistance for career counseling. It will also help individuals to choose their further education goals, plan experiential career paths, and select areas for development.

4.2 Objectives of the proposed research

Based on the clarification of the need of the study the following objectives are defined:

Objective 1: To identify and hierarchically analyze factors that affect learning agility.

Objective 2: To understand whether learning agility affects Job satisfaction.

Objective 3: To understand whether there is an effect of age on Job Satisfaction.

Objective 4: To analyze whether there is an effect of gender on Job Satisfaction.

Objective 5: To analyze whether work experience affects Job Satisfaction.

4.3 Conceptual framework

In this section, a diagram of the dependent and independent variable is discussed which will be undertaken in the present study.

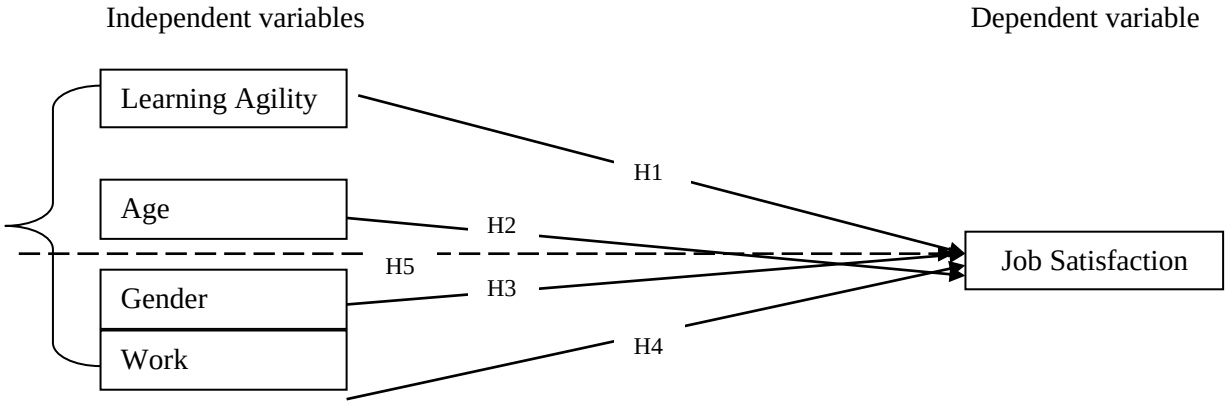

Figure 1 Conceptual Model created by researcher

- Independent Variables: Learning Agility, Age, Gender, and Work experience.
- Dependent Variable: Job Satisfaction

The independent variables in the conceptual framework encompass learning agility, demographic variables i.e. age and gender, and job-related characteristics of work experience. Job satisfaction is the dependent variable in this framework.

4.4 Scope of the study

The scope of the proposed research is extended to the corporate sector. Respondents will be employees at the entry-level, middle, and senior levels working in the corporate sector. Both men and women at different levels will be included in the sample.

5. RESEARCH METHODOLOGY

5.1 Sample Size – Factors and Pilot Study learnings

Factors under consideration for Sample Size determination: There are four factors taken into consideration for calculation of sample size. These are discussed in the context of the proposed study.

a. Level of significance: In social science research there is probability that due to sampling errors, it may be observed in the findings of pilot study that the relationship exists in sample but does not exist in the population. Given other factors are kept same, taking a large sample size will result in high probability of proving the hypothesis. In this scenario the sample size is inversely related to significance level and is generally accepted to be taken as 0.05 to reduce the type I error.

b. Level of statistical power: The probability of rejecting the null hypothesis when the null hypothesis is false is referred to as statistical power. In a converse situation it may occur that the relationship does not exist in sample, but the relationship exists in the population. Statistical power ranging between .70

and .85 might generally be viewed as acceptable. Increasing the statistical power will also result in choosing a larger sample size.

c. Data analysis procedure: To select the type of test for analysis, the more independent variables included in the study, the more subjects that are needed to adequately test all of the hypotheses generated in the design.

d. Effect size: To determine how many subjects are needed to reject the null hypothesis defines the effect size. It may be determined by comparing the population mean difference between the independent variables selected for the study and to study in which percentile they fall. A large sample size has a high probability of falseness of null hypothesis. Cohen (1992) suggested differences of .2, .5, and .8 standard deviation units as being small, medium, and large effects, respectively. Cohen strongly encouraged researchers to provide their own definition of a reasonable effect size depending on the subjects and variables under investigation.

5.2 Sample Size Determination based on pilot study.

A survey questionnaire was sent to 40 respondents, out of which 30 were received filled completely. Using the data from survey the following standard deviation and mean was calculated for two groups of experience and education. Cohen (1988) formula to determine effective sample size was used for calculating Cohen's d for following respondent groups: **Formula for Cohen's d = $\sqrt{((n_1-1) * SD_1^2 + (n_2-1) * SD_2^2)) / (n_1 + n_2-2)}$**

TABLE 2 CALCULATION OF COHEN'S D USING FORMULA

	As per experience	SD	Mean	n	m1-m2	1.58
Group 1	8-16 and 17 yrs above	4.72	106.92	23	Pooled SD	4.92
Group 2	2-8 years	5.59	105.33	7	**Cohen's ds**	**0.32**
	As per Education	SD	Mean	n	m1-m2	2.5
Group 1	Master's degree and doctorate	9.13	105.67	17	Pooled SD	7.98
Group 2	Bachelor's degree and diploma	6.11	108.17	13	**Cohen's ds**	**0.31**

Hence, using the sample size table for power of .80 at 0.01 significance level for d values of 0.31 and 0.32 showing under the small effect sizes group, the sample size as per table (Cohen, 1988, p 54) is **224**.

5.3 Data collection

Primary Data: To identify the factors affecting Learning agility, Nominal Group Technique (consensus building technique) will be used with experts from the area of academics and industry. To seek information for hypothesis testing, a questionnaire will be designed to collect data on demographic variables, learning agility and job satisfaction. The Gravett & Caldwell (2016) construct of Learning agility will be used in its original form. For Job satisfaction, a validated and reliable scale will be selected for use.

Secondary data: Researcher will refer to reports and datasets issued by the government and private organizations where it will be required as secondary data sources.

5.4 Data Analysis

Objective 1: NGT utilizes a structured methodology for prioritizing the factors discovered during ideation stage, which would comprise the analysis stage for decision making (Manera et. al, 2019).The hierarchical ordering of the factors would be graphically captured using Interpretive Structural Modelling (ISM) (Menon & Suresh, 2020).

Both these approaches belong to Systems thinking. One of the "real values of systems theory derive from the fact that it is possible to view a systems as a sub-system of interconnected subsystems of lesser complexity. If properly selected, structured, parameterized and validated, the subsystems of one interconnected system can serve as "building blocks" in modelling other systems (Satsangi, 2006). According to Satsangi (2006), "a number of management techniques basically consensus driven, interactive, iterative processes, such as creative idea engineering, nominal group technique, interpretive structural modelling, option field methodology, option profile methodology, Delphi studies, futures scenario building and fuzzy set approaches to planning and decision making (as alluded to earlier also) have been employed in a variety of real-world applications by my research group in a number of academic, sponsored and consultancy projects. One set of such applications in the field of Management of Rural Energy Systems (Satsangi and Gautam, 1983) arose from a National Workshop on Select Dimensions of Rural Energy Systems (Summer 1981), I.I.T. Delhi and Training Programmes in Applied Energy Systems Studies (Winter 1981) and (Summer 1982) I.I.T. Delhi".

Hence, pioneers of the Systems Movement in India, like Prof. Prem Saran Satsangi have used techniques like NGT and AHP in their work which is being aimed in the present research to be applied to the concept of Learning agility.

Objectives 2 to 5: Table 4 captures the nature of the variables and proposed statistical analysis techniques.

Table 4: Analysis Tools for Hypothesis

Hypothesis	Independent variable	Dependent Variable	Proposed Analysis Tool
H1	Learning Agility: Metric, Continuous	Job Satisfaction (Metric) – Scale is yet to be decided	Regression
H2	Age: Metric, Continuous	Job Satisfaction (Metric) – Scale is yet to be decided	Regression
H3	Gender: Categorical (Dummy variable can be used, else can be retained as a categorical variable)	Job Satisfaction (Metric) – Scale is yet to be decided	Anova (provided the dependent variable is normally distributed. Will decide once descriptive statistics have been checked after collection). Otherwise a Moods Median test may need to be conducted. If a dummy variable is used to represent gender, it can be incorporated into regression equation.
H4	Work Experience: Metric (number of years) and a self-structured instrument to understand experiential journey	Job Satisfaction (Metric) – Scale is yet to be decided	Regression, where variables are metric
H5	Learning agility and work experience	Job Satisfaction (Metric) – Scale is yet to be decided	Regression, where variables are metric

To sum up for statistical analysis, regression analysis can be used where the independent variables are metric to identify if they have a significant effect on Job satisfaction.

6. PROPOSED CHAPTERIZATION

The proposed research will contain the following chapters:

Chapter 1: Introduction

Chapter 2: Theoretical Orientation and Review of Literature

Chapter 3: Research Methodology

Chapter 4: Data Analysis and Findings

Chapter 5: Conclusion and Recommendations

Annexures

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